AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Withdrawn). A method for producing a cell that expresses a neural cell phenotype, the method comprising the steps of:

(a) providing an hepatic oval cell; and

(b) placing the hepatic oval cell under conditions that promote the differentiation of the hepatic oval cell into a cell that expresses a neural cell phenotype.

Claim 2. (Withdrawn). The method of claim 1, wherein the neural cell phenotype comprises expression of marker selected from the group consisting of: NFM, nestin, MAP2, βIII tubulin, α-internexin, GFAP, S100, and CD11b.

Claim 3. (Withdrawn). The method of claim 1, wherein step (b) comprises contacting the hepatic oval cell with an agent increases cAMP concentration in the hepatic oval cell.

Claim 4. (Withdrawn). The method of claim 3, wherein the agent is an analogue of cAMP.

Claim 5. (Withdrawn). The analogue of claim 4, wherein the analogue is dibutyryl cAMP.

Claim 6. (Withdrawn). The method of claim 3, wherein the agent is an inhibitor of cAMP phosphodiesterase.

Claim 7. (Withdrawn). The method of claim 6, wherein the agent is 3-isobutyl-1-methylxanthine.

Claim 8. (Withdrawn). The method of claim 1, wherein step (b) comprises culturing the hepatic oval cell with a neurosphere.

Claim 9. (Withdrawn). The method of claim 1, wherein step (b) comprises transplanting the hepatic oval into a central nervous system tissue in an animal.

Claim 10. (Withdrawn). The method of claim 9, wherein the central nervous system tissue is a brain.

Claim 11. (Currently Amended). A cell that expresses a neural cell phenotype, wherein ~~the~~ a liver stem cell is isolated and cultured in ~~media~~ medium comprising an agent which increases cAMP concentration in the liver stem cell, as compared to a liver stem cell not cultured in the medium, and the cultured liver stem differentiates into a cell expressing a neural cell phenotype.

Claim 12. (Currently Amended). The cell of claim 11, wherein the cell expresses [[a]] the marker: βIII tubulin.

Claim 13. (Withdrawn). The cell of claim 11, wherein the marker is NFM.

Claim 14. (Withdrawn). The cell of claim 11, wherein the marker is nestin.

Claim 15. (Withdrawn). The cell of claim 11, wherein the marker is MAP2.

Claim 16. (Withdrawn). The cell of claim 11, wherein the marker is βIII tubulin.

Claim 17. (Withdrawn). The cell of claim 11, wherein the marker is α-internexin.

Claim 18. (Withdrawn). The cell of claim 11, wherein the marker is GFAP.

Claim 19. (Withdrawn). The cell of claim 11, wherein the marker is S100.

Claim 20. (Withdrawn). The cell of claim 11, wherein the marker is CD11b.

Claim 21. (Withdrawn). A method of introducing a cell into a host animal subject, the method comprising the steps of:

(a) providing the animal subject; and

(b) introducing into the subject a cell made according to the method of claim 1.